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Attorney Docket No.: NL 000160
1652.0006C

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the PATENT application of

Johannes Andreas Zaat

Group Art Unit: 2879

Serial No.: 09/817,085

Examiner: Perry, Anthony T.

Filed: March 26, 2001

For: Electric Lamp Having Aluminum-Silicon Connection Body

RESPONSE TO FINAL REJECTION

Commissioner for Patents
Washington, D. C. 20231

Sir:

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The Examiner is requested to reconsider the final rejection.

The present invention is directed to an improved electric lamp wherein electric contact members in the lamp base and current supply wires are fastened to each other by means of a solidified connection body comprising aluminum silicon. In the structure of the invention, the contact members and current supply wires are fused to the solidified connection body. Additives in very small amounts may be added to the aluminum and silicon of the connection body.

The AlSi connection body has a lower melting temperature than substances used for lamp connections in the prior art and thus during manufacture there is less thermal load placed on the base portion, and consequently less risk of deformation and fewer rejects.

The claims stand rejected under 35 USC 103 as being obvious over Vause, Patent No. 3,885,186 in view of Essers, Patent No. 5,039,905. It is respectfully submitted that the rejection should be withdrawn.

The claims require that the contacts and current supply wires be fused to a connection body of aluminum silicon. Vause teaches the use of aluminum silicon copper in the superplastic state without fusing or melting. Essers teaches the use of a connection body of alloys other than aluminum silicon with fusing.

The Office Action states:

“The Vause reference does not specifically teach the supply conductor being fused to the solidified connection body. However, fusing to form a secure joint is well-known in the art as evidenced by Essers. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have fused the supply conductor to the solidified connection body, since the selection of known methods for a known purpose is within the skill of the art.”

It is submitted that the rejection is not tenable. Not only does Vause “not specifically teach” the supply conductor being fused to the solidified connection body, but he requires that it not be fused.

Thus, in Vause, the material of the connection body is always kept below its melting temperature (col. 2, line 1) and is arranged to be in a superplastic state wherein it can flow between the surfaces to be joined when exposed to infrared radiation. As stated in col. 2, lines 4 and 5 of Vause,

“no melting involved”.

Indeed, the whole purpose of Vause is to avoid soldering or fusing of the connection body because the disadvantages of such approach, as well as the alleged disadvantages of the use of flux render the connection unsatisfactory. (Vause, col. 1, lines 20 to 57). On the other hand, in making Applicant’s fused connection, flux may be used. (Specification, page 3, line 10).

It is well established that if the proposed modification of the reference would render the invention being modified unsatisfactory for its intended purpose, then there is no suggestion or

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motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Hence, the references cannot be combined as in the present rejection.

Moreover, the use of aluminum silicon for fused lamp connections has many advantages, none of which are disclosed by the prior art. First, the lower melting point (in comparison with aluminum) reduces the risk of rejects during manufacture. Also, AlSi was also found to be resistant to electrochemical corrosion as well as affording a good adhesion/wetting of the connection body to the base and shell portions of the lamp. (Specification, page 2, lines 10 to 15). Significantly, there is no prior art in the record which discloses such advantages. It is certainly not established by the prior art that such advantages would result from the use of aluminum silicon. Because of the absence of such teachings as well as the other reasons advanced above, it is submitted that the use of aluminum silicon for a fused lamp connection body is unobvious and patentable.

In view of the above, allowance claims 2 to 5 is respectfully requested.

Respectfully submitted,



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